

PATENT ABSTRACTS OF JAPAN

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H01L 29/792

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(71)Applicant : TOSHIBA CORP

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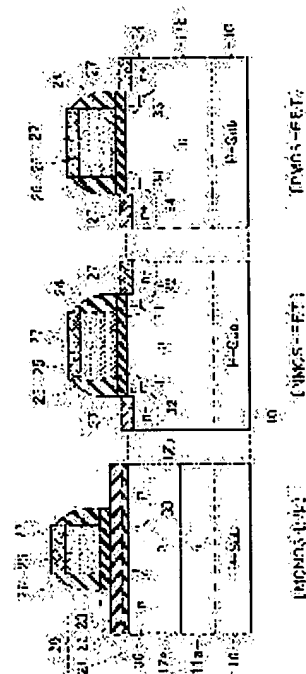
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TANAKA MASAYUKI
SAIDA SHIGEHICO

(54) SEMICONDUCTOR DEVICE AND ITS MANUFACTURING METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a semiconductor device of high performance wherein a MONOS type memory cell is formed on a semiconductor substrate and a method for manufacturing the device.

SOLUTION: This semiconductor device is provided with the semiconductor substrate, the memory cell which is formed on the semiconductor substrate and has a first gate insulating film of a laminate structure which contains a silicon nitride film turning to a charge storage layer, and a transistor which is formed on the semiconductor substrate and has a second gate insulating film. A source/drain diffusion layer of the memory cell is coated with a part of the first gate insulating film, and a metal silicide film is formed on a surface of a source/drain diffusion layer of the transistor.



LEGAL STATUS

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[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

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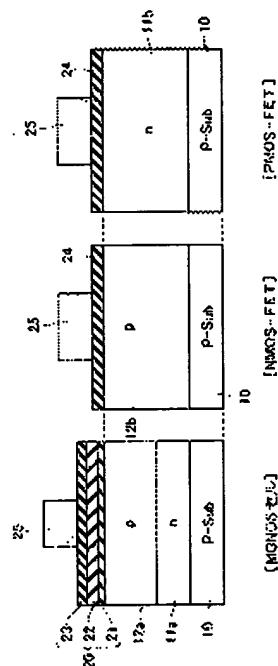
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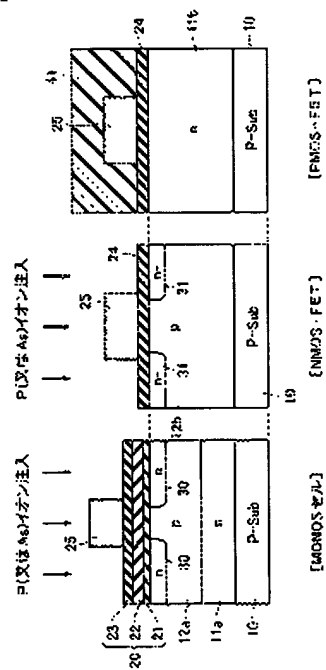
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JP 2004-39866 A 2004.2.5

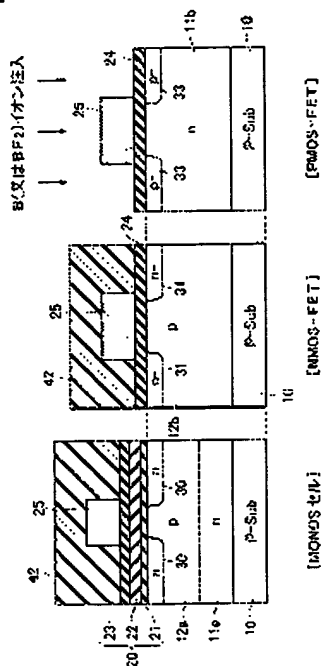
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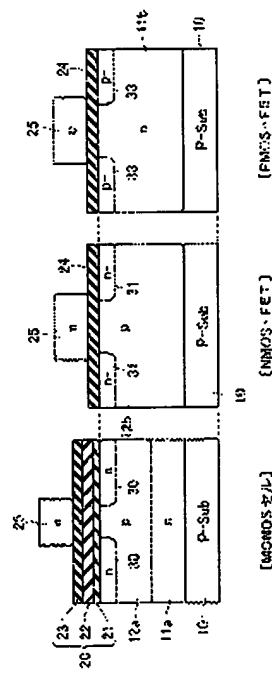
【図 4】



【図 5】



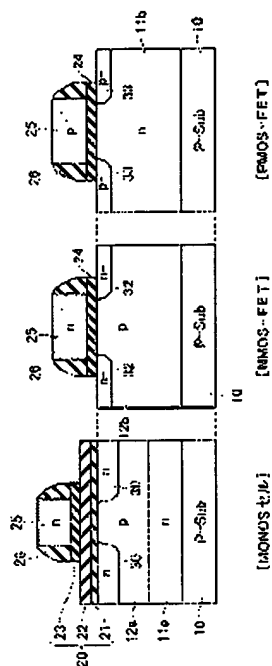
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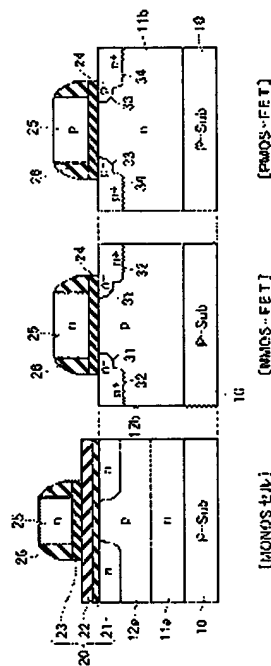
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JP 2004-39866 A 2004.2.5

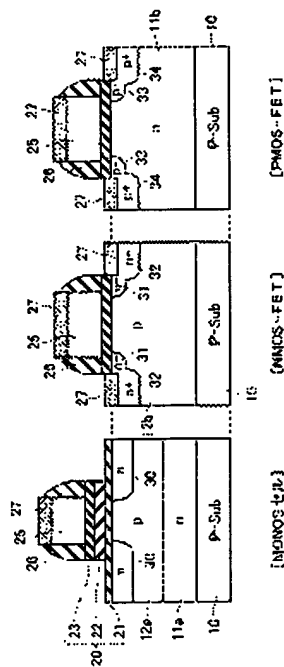
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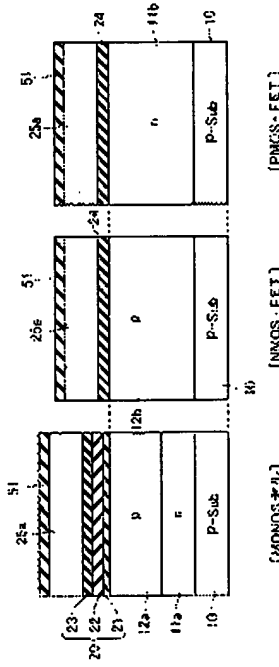
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【図 9】



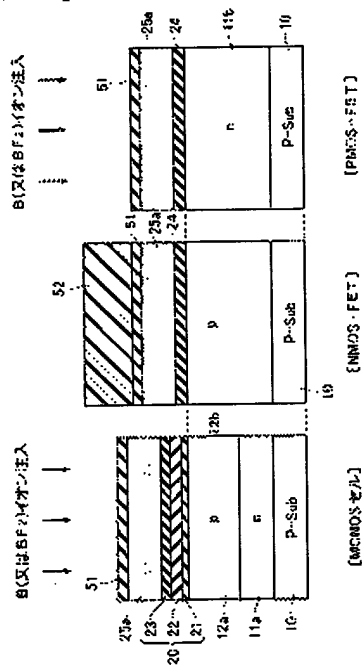
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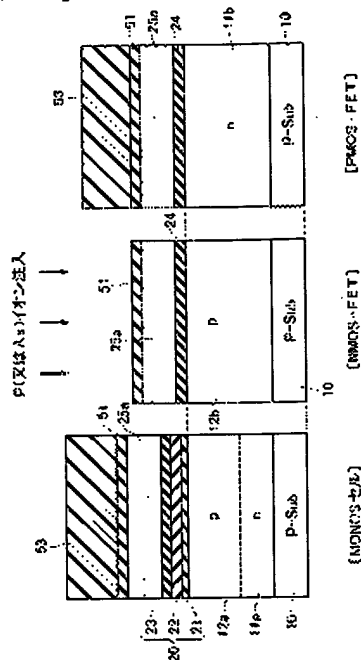
JP 2004-39866 A 2004.2.5

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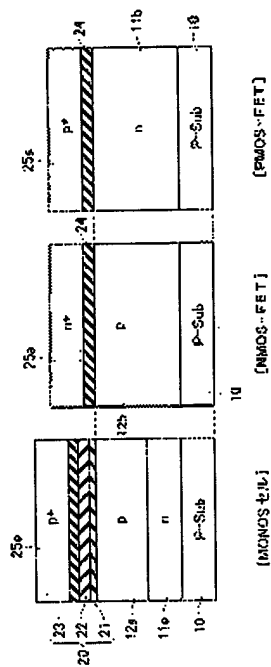
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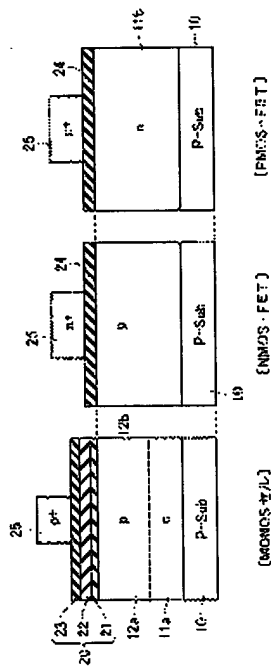
【図 1 2】



【図 1 3】



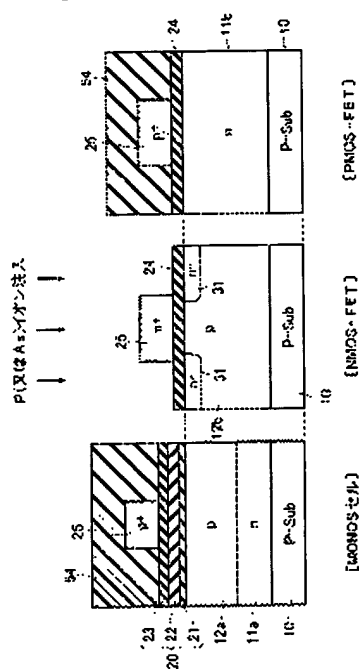
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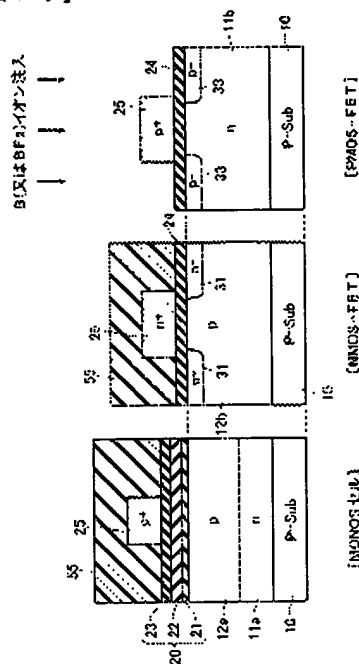
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JP 2004-39866 A 2004.2.5

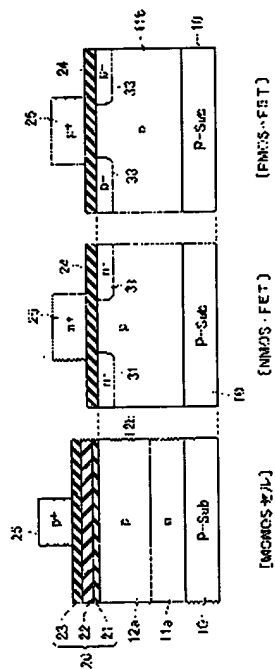
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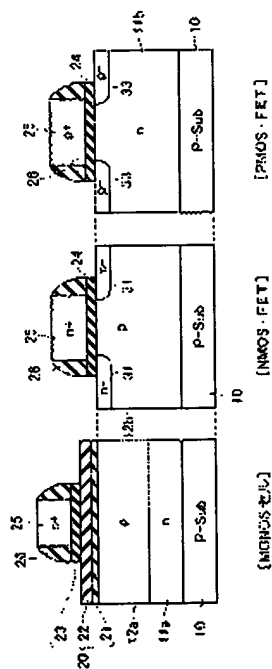
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【図 17】



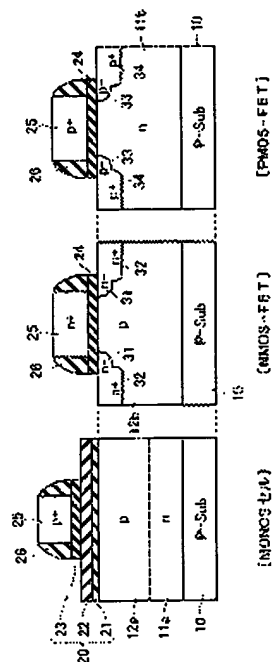
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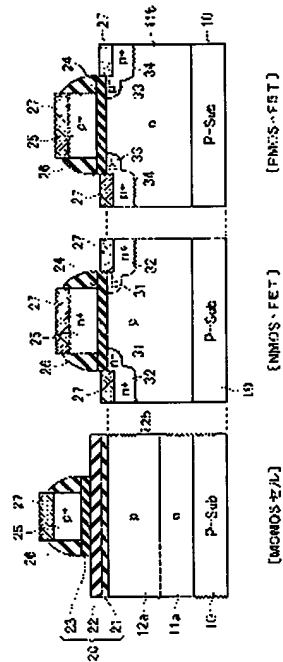
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JP 2004-39866 A 2004.2.5

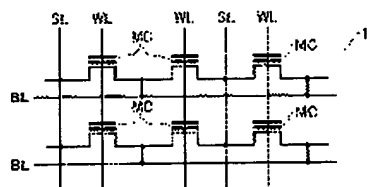
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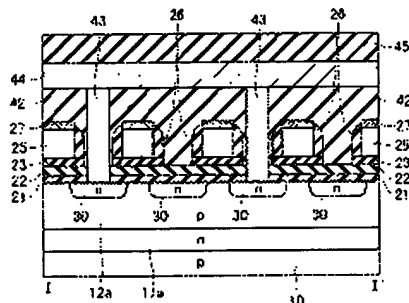
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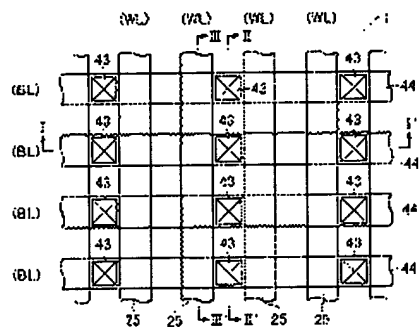
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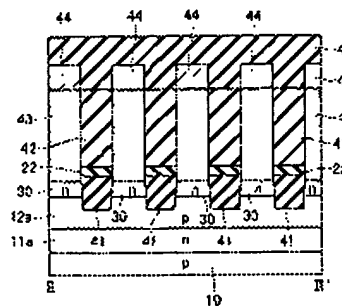
【図 23 A】



【図 22】

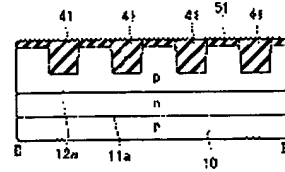


【図 23 B】

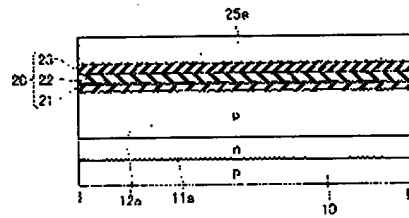


JP 2004-39866 A 2004.2.5

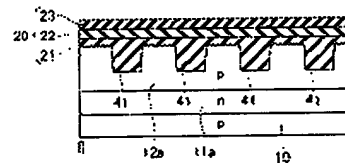
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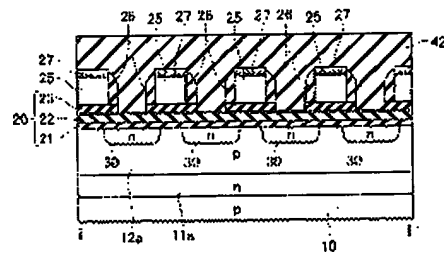
【图 24 A】



【図 26B】



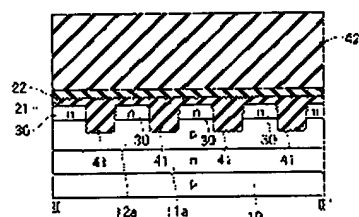
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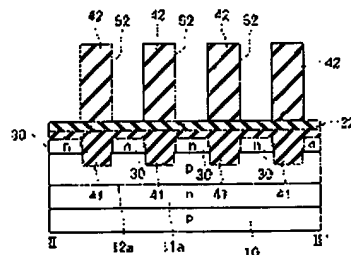
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JP 2004-39866 A 2004.2.5

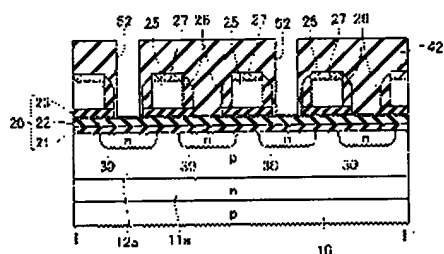
【図 27 B】



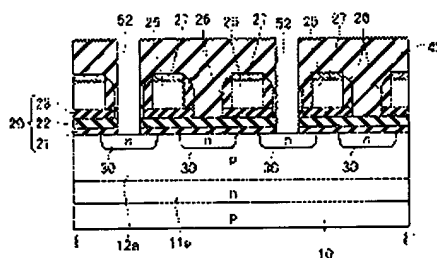
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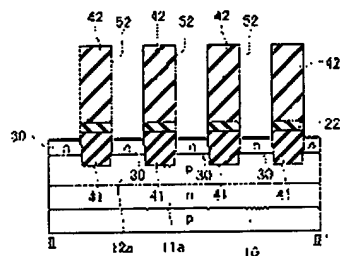
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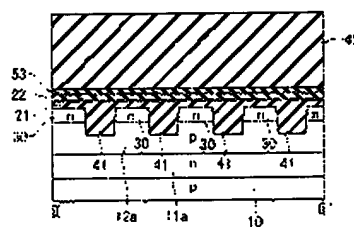
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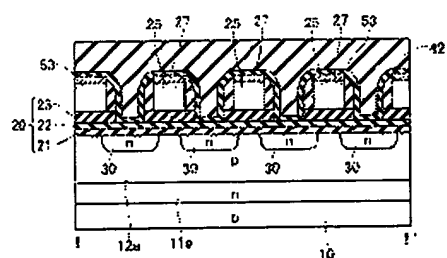
【図 29 B】



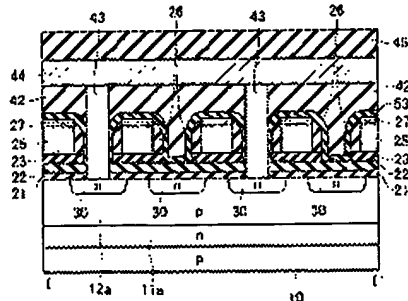
【図 30 B】



【図 30 A】



【図 31 A】



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JP 2004-39866 A 2004.2.5

【図 3 1 B】

